

10.5 FACTORING

$$x^2 + bx + c$$

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GOAL: Find factors of C that add up to B!

$$1. x^2 + \overset{b}{8}x + \overset{c}{15} \rightarrow 3 \cdot 5$$

$$(x+3)(x+5) \rightarrow 1 \cdot 15$$

$$x^2 + 8x + 15$$

$$2. x^2 - \overset{b}{9}x + \overset{c}{20}$$

$-4, -5$

$$(x-4)(x-5)$$

3. $x^2 - 8x - 9$

1, -9

$(x+1)(x-9)$

4. $x^2 + 3x - 18$

$(x-3)(x+6)$

5. $x^2 + 11x + 10$

$$(x+1)(x+10)$$

6. $x^2 - 17x + 60$

$$(x-12)(x-5)$$

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1. ~~$x^2 - 2x - 48$~~

$$2x^2 - 4x - 48$$

$$2(x^2 - 2x - 24)$$

$$\underline{2(x+4)(x-6)}$$